

**Arizona Corporation Commission
Meeting Minutes**

DATE: August 26, 2005

TIME: 9:30 a.m.

PLACE: Arizona Corporation Commission, 1200 W. Washington Street,
Hearing Room, Phoenix, Arizona 85007

ATTENDANCE: No quorum of Commissioners. See attendance list on Attachment
1.

TOPIC: DISTRIBUTED GENERATION WORKSHOPS
DOCKET NO. E-00000A-99-0431

Staff provided the following documents at the workshop:

- Staff Draft Discussion Document dated August 26, 2005
- H.R.6 Section 1254 of the Energy Policy Act 2005 titled Interconnection
- NARUC October 2003 Model Interconnection Procedures and Agreement for Small Distributed Generation Resources

Ms. Barbara Keene of Commission Staff welcomed the participants of the workshop and each participant made a self-introduction. Ms. Erinn Andreasen of Commission Staff provided a description of the August 26, 2005, Staff Draft Discussion Document ("Discussion Document"). Ms. Andreasen explained that the Discussion Document does not represent a formal position of Commission Staff and that it included recommended language from various parties taking part in the Distributed Generation ("DG") workshop process. The Discussion Document included the topics of Applicability, Rights and Responsibilities, Definitions, and Interconnection Process and Procedures that generally correspond to the Attachment 2, Topic for Comment list included in the minutes to the July 8, 2005 workshop. A similar discussion document addressing the Technical and Operational Requirements provided in that Topic for Comment list will be forthcoming.

Ms. Keene also explained that H.R. 6 Section 1254 of the 2005 Energy Policy Act ("Act") suggests that the NARUC October 2003 Model Interconnection Procedures and Agreement for Small Distributed Generation Resources could be used as a guide in identifying DG best practices.

In addition, Ms. Keene explained that net metering would be addressed at workshops that would begin after the conclusion of the interconnection standard portion of the DG workshop, process based on the Commission's August 10, 2005, deliberation regarding the Environmental Portfolio Standard.

The group discussed the Discussion Document in detail. The “Coalition Members”¹ commented that on a going forward basis they would like to be referred to as the “DG Advocates.” Throughout the discussion, the group recommended various changes to the language in the Discussion Document and identified a list of issues that would need further discussion between workshop participants. It was determined that the more contentious issues raised during the workshop would be categorized as “hot topics.” In order to allow for more in depth discussion between the Utilities and DG Advocates regarding hot topics and other issues, the group determined that a separate working committee should be formed. The working committee would be chaired by representatives from the Utilities and representatives from the DG Advocates. It was determined that APS would represent the various Utilities taking part in the workshop process. It was discussed that the co-chairs would have the responsibility to schedule meetings, take meeting minutes, identify issues to be discussed, and to communicate with Staff regarding the status of the working committee. It was also discussed that a technical subcommittee could be formed at a later date to address technical issues.

A summary of the outstanding issues and changes to the Discussion Document identified by the group at the August 26, 2005 workshop are provided below.

- Under Section 1.1 Applicable Facilities, the power rating of 25 kV would be removed from the first sentence.

The issue of interconnecting to a network was identified as a hot topic.

- Language under 1.2 Categories of Generators that clarifies that interconnection for facilities of 10 MW or greater would be processed under FERC interconnection rules would be moved to section 1.1. It was discussed that the Utilities and DG Advocates may suggest alternate language.

In response to utility concerns, the statement that no pre-interconnection study is required would be removed. The utilities expressed concern regarding safety and reliability and the need for pre-interconnection studies. The issue of who has the responsibility to pay for the interconnection study, the applicant or the utility, was also raised. It was also discussed that the screens provided in Section 4.8 would serve to provide a form of pre-interconnection study. One participant mentioned that the screening process was adopted by NARUC and jurisdictions such as Colorado. Further discussion between the Utilities and DG advocates will take place on this issue. This issue was identified as a hot topic.

The issue of generator categories or levels was discussed. The Cooperatives and utilities broke down the levels into smaller categories than the DG Advocates.

¹ Arizona Solar Energy Industry Association, Distributed Energy Association of Arizona, Greater Tucson Coalition for Solar Energy, Intermountain Combined Heat and Power Center, Intermountain Combined Heat and Power Initiative, Southwest Energy Efficiency Project, Vote Solar Initiative, and Western Resource Advocates.

The issue of categories of generators or levels will further be discussed between the Utilities and DG Advocates.

- Under Section 1.3 Distributed Generation Types, a comment was made that an overview and definition from IEEE 1547 could be used to describe synchronous, induction, separate, and parallel system.
- Under section 1.3.1 Separate System, language should be added that clarifies that the separate system refers to one with grid tie capability.
- Under Section 1.3.2 Parallel System, language should be added to specify what is not considered under section 1.3.2 Parallel System. In addition, the term “utility interactive mode” should be changed to “utility interconnected mode.”
- Section 1.4 Jurisdiction should be incorporated into Section 1.1 Applicable Facilities.
- Under Section 2.1 Applicant Rights and Responsibilities, the first sentence in the second paragraph should be modified to tie the system studies to the screens section of the document. The first sentence should also be modified to reflect that the cost of necessary interconnection facilities should be paid for by the applicant. In addition, the second sentence should be modified to clarify that the DG applicant has the responsibility of disclosing information to the utility. Also, the third sentence should be modified to add utility personnel and the public to the list of protected items. In addition, the last sentence should be modified to include electronic communication for notification.

In response to the fourth sentence in the third paragraph, it was noted that in the event that additional facilities are required to be installed on the utility’s system to accommodate a customer’s generation, the utility should provide such notice to the customer up front, not after the fact.

In response to the last sentence of the third paragraph, it was discussed that references to the customer covering interconnection study costs should be moved to a section that provides a breakdown by level.

In response to the third paragraph under subsection (iii), the words “affecting or” near the end of the sentence should be deleted.

The utilities and DG advocates will discuss this section further and the group identified this section as a hot topic.

- Under Section 2.2 Utility Rights and Responsibilities, it was discussed that sections a, b, and c. in regard to utility responsibilities to ensure that DG does not present hazard to personnel, damage to equipment, or hamper efforts to restore feeder service set too low of a standard. It was determined that the Utilities and

DG Advocates would discuss the issue further. This issue was identified as a hot topic.

It was discussed that at the beginning of the first sentence in the third paragraph the phrase “has the responsibility” should be replaced with “is required.” Comment was made that any language suggesting responsibility should be affirmative.

In addition, the provision in the second sentence of the third paragraph that requires utilities (when a deadline cannot be met) to notify the customer, provide a reason to the customer, and provide an estimated timeframe for completion of the process was identified as a hot topic. It was determined that the Utilities and DG Advocates would discuss the issue further. Comment was made that the utility should also provide notice to the Commission. Comments were also made that the language is not necessary because any disputes about the process will go through dispute resolution.

The issue of utilities having the responsibility to maintain their systems and provide information including information on loads to the applicant was also discussed and identified as a hot topic. Further discussion is required by the Utilities and DG Advocates.

Also, it was discussed that the language in the last sentence of the third paragraph regarding the requirement that the utility must assess and identify the benefits of DG if studies are needed should be refined and further discussion is required by the Utilities and DG Advocates. This issue was identified as a hot topic.

- Under Section 2.3 Easements/Rights of Way, it was discussed that the current provision would only apply where existing easements/rights of way do not exist. It was also discussed that this information should be listed by category of generator or levels.
- Under Section 2.4 Insurance, the group discussed that the issue would require further discussion by the utilities and DG advocates. The issue of insurance was identified as a hot topic. Some DG Advocates commented that this is an impediment to DG.
- Under Section 2.5 Non-Circumvention, it was suggested that the issue could be handled with a confidentiality agreement and that there may be rules that would prevent the customer from seeking a lower electric rate in return for not self-generating. The group discussed that the issue would require further discussion by the Utilities and DG Advocates. The issue of non-circumvention was identified as a hot topic.
- Under Section 2.6 Force Majeure, a new heading titled “Indemnity” should be added before the last paragraph. It was also discussed that language regarding the

utility indemnity should be added. It was determined that the Utilities and DG Advocates would discuss the issue further. This item was identified as a hot topic.

- The DG advocates also commented that their July 29, 2005, comment (under Section 2.6, Other Issues) titled “No Additional Requirements” should be added to the discussion document as a separate section. It was determined that the Utilities and DG Advocates would discuss the issue further. This item was identified as a hot topic.
- Under Section 3 Definitions, it was discussed that the following terms should be added to the document: “Arizona Corporation Commission”, “Distribution”, “Transmission”, “Interconnection Facility”, “Radial”, and “Independent Generation”. It was determined that the Utilities and DG Advocates would discuss the issue of definitions further.

It was suggested that the definition for “Small Power Production Facility” be obtained from FERC rules.

It was also discussed that the following existing definitions should be removed and would be determined based on further discussion between the Utilities and DG Advocates: “Annualized Period” and “Net Metering”.

Under the definition of “Point of Common Coupling”, option 2 should be deleted and a sentence about point of distributed resources be added to option 1.

In addition, the group discussed that the definition for “Interconnection Study” was redundant when considered with “Pre-Interconnection Study” and should be removed. Also, the multiple definitions related to the network system, including “Spot Network” and “Secondary Spot Network System” should be combined.

In addition, the group identified the following terms as hot topics: “Distribution”, “Transmission”, “Certified Equipment”, “Interconnection Facility” and “Network Service”. It was determined that the Utilities and DG Advocates would discuss the issue further.

- Under Section 4.2 General Process & Procedures, it was discussed that a queuing system should be identified by level of generator. It was also discussed that the section under 4.2 titled “Requirements” which refers to customer requirements and responsibilities should be added to the language in section 2.1 Customer Rights and Responsibilities. In addition the reference to “radial” distribution system should be removed.
- Under Section 4.3 Documentation Requirements, in response to electrical diagram requirements, it was discussed that standard engineering symbols should be adopted and that IEEE could provide a source for reference. In addition, these

requirements need to be listed by generator category or level. It was determined that the Utilities and DG Advocates would discuss the issue further.

- Under Section 4.4 Equipment Certification (Option 1, DG Advocate Language), subsection d. which refers to the addition of protection equipment at the utilities expense was identified as a hot topic. It was determined that the Utilities and DG Advocates would discuss the issue further.
- Section 4.8 Screens should be placed directly after the levels or categories of generators in Section 1.2.

A chart including a brief summary of the outstanding issues is provided below. The outstanding issues should be discussed by the working committee to see if consensus can be reached among the participants. The working committee should present to the larger group the results of their efforts at the next workshop.

Issue	Section	Issue to be Addressed by Working Committee and the DG Working Group	Hot Topic
1	1.1 Applicable Facilities	The issue of interconnecting to a network was identified as a hot topic.	Yes
2	1.2 Categories of Generators	Language clarifying that interconnection for facilities of 10 MW or greater would be processed under FERC guidelines. Language may be suggested by Utilities and DG Advocates.	No
3		Pre-Interconnection Studies and/or Screens. Are they adequate as written?	Yes
4		Generator categories or levels. What should they be?	No
5	Section 1.3 Distributed Generation Types	An overview and definition from IEEE 1547 could be used to describe synchronous, induction, separate, and parallel system. What language should be included?	No
6	Section 2.1 Applicant Rights and Responsibilities	Entire section. References to the customer covering interconnection study costs should be moved to a section that provides a breakdown by generator category or level.	Yes
7	Section 2.2 Utility Rights and Responsibilities	It was discussed that sections a, b, and c. in regard to utility responsibilities service set too low of a standard.	Yes
8		Second sentence of the third paragraph that requires utilities to notify the customer should be discussed.	Yes
9		The issue of utilities having the responsibility to maintain their systems and provide information including information on loads to the applicant.	Yes
10		Last sentence of the third paragraph that states that the utility must assess and identify the benefits of DG if studies are needed should be discussed.	Yes

Issue	Section	Issue to be Addressed by Working Committee and the DG Working Group	Hot Topic
11	Section 2.3 Easements/Rights of Way	This information should be listed by category of generator or levels.	No
12	Section 2.4 Insurance	Entire section	Yes
13	Section 2.5 Non-Circumvention	Entire section	Yes
14	New Section Indemnity	Entire section	Yes
15	New Section No Additional Requirements	Entire section	Yes
16	Section 3 Definitions	The following terms should be added to the document and are to be determined: “Distribution”, “Transmission”, “Interconnection Facility”, “Radial”, and “Independent Generation”.	No
17		<p>The following existing definitions are to be determined: “Annualized Period” and “Net Metering”.</p> <p>It was discussed that the definition for “Small Power Production Facility” be obtained from FERC rules.</p> <p>The multiple definitions related to the network system, for instance, “Spot Network” and “Secondary Spot Network System” should be combined and are to be determined.</p>	No
18		Definitions for “Distribution”, “Transmission”, “Certified Equipment”, and “Network Service” are hot topics and need to be determined.	Yes
19	Section 4.2 General Process & Procedures	It was discussed that a queuing system should be identified by level of generator.	No
20	Section 4.3 Documentation Requirements	In response to electrical diagram requirements, it was discussed that standard engineering symbols should be adopted and that IEEE could provide a source for reference. In addition, these requirements need to be listed by generator category or level. Which symbols?	No
21	Section 4.4 Equipment Certification (Option 1, DG Advocate	Subsection d. which refers to the addition of protection equipment at the utilities expense should be discussed.	Yes

	Language)		
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The Utilities and DG Advocates were asked to email to eandreasen@azcc.gov and bkeene@azcc.gov a list of representatives that will be co-chairing the working committee. In addition, workshop participants were asked to provide an asterisk at the left of their name on the sign-in sheet if they would like to volunteer to participate on the working committee. A list of committee volunteers is provided as Attachment 2.

Staff will be sending out (in Word format) the August 26, 2005 Discussion Document to the group as a revised and redlined document based on the discussion in this meeting.

It was also discussed that, at the next meeting, representatives from the working committee would provide a revised document or report based on the discussions of the working group. It was noted that the document would be provided in Word format in advance of the meeting.

The next workshop will be held on **Friday September 23, 2005, from 9:30 a.m. to 4:00 p.m. at 1110 W. Washington Street, Suite 250, Phoenix, AZ 85007.** A workshop agenda will be forwarded to the group prior to the workshop date.

Attendees at the Distributed Generation Workshop August 26, 2005	
<u>Name</u>	<u>Representing</u>
Terry Anderson	ETA Engineering
Erinn Andreasen	Commission Staff
Torey Bell	Sulphur Springs Valley Electric Cooperative
Bob Baltes	Distributed Energy Association of Arizona
David Berry	Western Resource Advocates
Steve Bischoff	Arizona Public Service
Jana Brandt	Salt River Project
Richard Brill	Deluge, Inc.
Adam Browning	Vote Solar
Jennifer Cannon	Pinnacle West Energy Corporation
Brian Cole	Arizona Public Service
Chris Cook	ASPV/IREC/Sun Edison
David Couture	Tucson Electric Power
Gary Crane	MMR Power Solutions
Travis Cunningham	Salt River Project
Greg Delizio	Arizona Public Service
Douglas Fant	Distributed Energy Association of Arizona
Pauline Foley	Pinnacle West
Art Fregoso	Tucson Electric Power
Lori Glover	Solid USA
Brian Hageman	Deluge, Inc.
Bill Henry	Tucson Electric Power
Barbara Keene	Commission Staff
Joe McGuirk	Sun Miner
Gary Mirich	Energy Strategies
Bill Murphy	Distributed Energy Association of Arizona
Ernest Nedd	Residential Utility Consumer Office
Ted O'Connor	CHP Initiative
Brian O'Donnell	Southwest Gas
Ron Onate	Arizona Public Service
Caren A. Peckerman	Deluge, Inc.
Valarie Rauluk	Greater Tucson Coalition for Solar Energy
Russ Romney	Curtis, Goodwin, Sullivan, Udall & Schwab
David Rumolo	Arizona Public Service
Jeff Schlegel	Southwest Energy Efficiency Project
Chuck Skidmore	City of Scottsdale
Aron Stallings	Mohave Electric Cooperative
Scott Swanson	Arizona Public Service
John Wallace	Grand Canyon State Electric Cooperative Association

Attendees at the Distributed Generation Workshop August 26, 2005	
<u>Name</u>	<u>Representing</u>
Chris Weathers	Arizona Public Service
Ray Williamson	Commission Staff
Daniel Wilson	Sulphur Springs Valley Electric Cooperative
Tom Yost	Arizona Public Service

Distributed Generation Workshop Committee Volunteers	
<u>Name</u>	<u>Representing</u>
Torey Bell	Sulphur Springs Valley Electric Cooperative
Bob Baltes	Distributed Energy Association of Arizona
Steve Bischoff	Arizona Public Service
Christine Brinker	Intermountain CHP Center
Brian Cole	Arizona Public Service
Pauline Foley	Pinnacle West
Bryan Gernet	Arizona Public Service
Brian Hageman	Deluge, Inc.
Bill Henry	Tucson Electric Power
Steve Metzger	Tucson Electric Power
Bill Murphy	Distributed Energy Association of Arizona
Ted O'Connor	CHP Initiative
Brian O'Donnell	Southwest Gas
Ron Onate	Arizona Public Service
Valarie Rauluk	Greater Tucson Coalition for Solar Energy
David Rumolo	Arizona Public Service
Chuck Skidmore	City of Scottsdale
Scott Swanson	Arizona Public Service
John Wallace	Grand Canyon State Electric Cooperative Association
Chris Weathers	Arizona Public Service
Tom Yost	Arizona Public Service